University of Alberta

Invisible Women: Understanding the Barriers to Physical Activity for Low Income, Older Adult Women

By

Tobie Rebecca Mathew ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfilment of the requirements for the degree of Master of Science

Centre for Health Promotion Studies

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October 2, 2000

IF YOU ARE GOING TO HELP ME

Please be patient while I decide if I can trust you.

Let me tell my own story, the whole story, in my own way.

Please accept that whatever I have done, whatever I may do, is the best I have to offer.

I am not a person; I am this person, unique and special.

Don't judge me as good or bad, right or wrong. I am what I am, that is all I've got.

Don't assume that your knowledge about me is more accurate than mine,

You only know what I told you.

Don't think that you know what I should do. You don't. I am still the expert on me.

Don't place me in the position of living up to your expectations, I have enough trouble living up to my own.

Please hear my feelings, not just my words. Accept all of them.

Don't save me. I can do that for myself. I knew enough to ask for your help.

Help me to help myself.

Anonymous

ABSTRACT

Although the benefits of exercise are increasingly well known, there is little known about the barriers to exercise participation, particularly for low-income older adult women. The purpose of this study was to explore and describe the barriers to exercise that occur for low-income older adult women. A sample of 8 women, living in the inner city of Edmonton was interviewed using a semi-structured interview format. Six themes emerged from the dialogue, which suggest that *living in fear, not having support, not having control, can't be bothered, not having confidence,* and *exercise is too risky* were the main barriers identified by the women. The findings of this study suggest that future investigation to identify the relationships between barriers and exercise participation for low-income older adult women is necessary however, the results from this study may be used to enhance services and programs that are currently being offered.

University of Alberta

Faculty of Graduate Studies and Research

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled, Understanding the Barriers to Exercise Participation for Low-Income Older Adult Women submitted by Tobie Rebecca Mathew in partial fulfilment of the requirements for the degree of Master of Science.

S. O'Brien Cousins

Dr. Sandy O'Brien Cousins

Dr. Pamela Brink

Kerry Courneya

Dr. Kerry Courneya

September 20, 2000

Recorded on this body I see
A journal of where I've been.
White etched scars, lines and calluses.
A silent record of the race I've run.

Linda Dumont

To the women in this study for sharing a piece of their lives with me.

To Rachel Mathew for being my hero.

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CHAPTER ONE

INTRODUCTION

Generally physical activity can be defined as body movement that occurs by the movement of skeletal muscles, which requires energy expenditure and produces progressive health benefits (NIH, 1995). On the other hand, exercise is defined as a type of physical activity that is planned, structured and repetitive in body movement which will improve or maintain one or more components of physical fitness (NIH, 1995). It is agreed upon that most older adults can benefit from a properly designed physical activity program, however, there is ambiguity regarding the amounts of physical activity that are appropriate to enact beneficial health effects in the elderly population. The common recommendation is that individuals should accumulate 30 minutes or more of moderate-intensity physical activity most days of the week (NIH, 1995). However, when applying these recommendations to older adults with one or more physical or medical limitations, the intensity of the activity should be lowered slightly while the frequency and duration can be increased (Pollock, Graves, Swart, & Lowenthal, 1994).

Similarly, The Canadian Physical Activity Guide for Older Adults (1999) suggests that older adults should try to be physically active everyday but that 30-60 accumulated minutes of moderate activity most days of the week will improve health and fitness. The guide also suggests that physical activity can be divided into three general types of activities including endurance, flexibility and strength and balance activities. The guide describes endurance activities as those that help the older adult increase energy, make

them feel warm and breathe deeply. Such activities include dancing and walking. Flexibility activities are illustrated as those that help to maintain ease of body movement and includes gentle stretching, bending and reaching such as gardening, mopping floors and vacuuming. Strength and balance activities are activities that challenge muscles and help to keep muscles and bones strong and improve balance and posture. Carrying laundry, groceries and weight training classes are activities that fit in this group.

The Importance of Physical Activity for the Female Older Adult

Generally, females are physically weaker than males at all ages (Cook, Smith-Exton, Brocklehurst & Lempert-Barber, 1993) however this becomes more pronounced as individuals age. Recently, the Canadian Health and Activity Limitation Survey found that more women than men, over the age of 65, had trouble: walking 400 meters, walking up or down stairs, carrying a 5 kilogram object, moving from room to room and trouble standing for 20 consecutive minutes (Raina, Dukeshire & Lindsay, 1997a). Research has demonstrated that older women are near the threshold value of quadriceps strength required to rise from a chair (Young, 1986). When women experience such physical limitations, this deterioration leads to a loss of physical independence in activities of daily living (ADL), such as bathing and dressing oneself, as well as instrumental activities of daily living (IADL), such as shopping, food preparation, housekeeping and doing laundry.

The benefit of participating in exercise to modify the risk of losing independence for elderly populations has been well established. For example, exercise has a considerable

impact on strength. This finding is important, as muscle strength is lost at 15% per decade after the age of 60 (Vandervoot & McComas, 1986). With sedentary lifestyles and lack of stimulating movement, muscle tone is severely compromised. However, this age related loss of muscle tone can be slowed down or even reversed by resistance training, thereby possibly improving the quality of life for elderly women and further, enabling them to maintain ADL and IADL (Taunton et al., 1997).

Exercise also has a considerable impact on functional abilities that include aerobic power, motor performance, grip strength, reaction time, and flexibility. With increased functional ability and fitness, the ability to carry out ADL improves (Simonsick et al., 1993; Fiatarone et al., 1994). Functional fitness does not only have an impact on ADL but decreases the risk of falls through balance and gait and furthermore, reduces the risk of injury from falls through increased bone density (ACSM, 1996).

A recent Canadian survey found the majority of injuries that occurred to seniors were as a result of falls and over one-half of all resulting injuries occurred in women (Raina, Dukeshire, Chambers, Toivonen & Lindsay, 1997b). Moreover, the consequence was the likelihood that these women could not perform ADL by themselves. In fact, almost 60% of these women experienced activity restriction (Raina et al., 1997b). The major risk factors for falls in the elderly are impairment in musculoskeletal function, decreased bone density and impaired balance and gait (Tinnetti, Doucette & Claus, 1995). Further,

epidemiological studies reveal that elderly women who exercise frequently have a lower incidence of fractures caused by falls (ACSM, 1996).

There are also psychological benefits to exercise participation. For instance, participating in an exercise group consisting of peers enables participants to expand their social network as well as to both give and receive social support (Chow, Harrison & Dornan, 1994). The experience of social support is known to have significant positive effects on health status, particularly in the elderly adult (Nelson, 1995). Further, exercising individuals demonstrate higher levels of self-efficacy (McAuley, 1993) and a sense of life control (Rodin, 1986). These benefits give the elderly woman the confidence, support and opportunity to negotiate life circumstances and remain as independent as possible for the remainder of her life.

Prevalence of Physical Activity in the Female Older Adult

Despite the evidence supporting the benefits of exercise in elderly women, participation rates are disappointingly low. In general, exercise levels decrease across age groups with half as many individuals over 65 being active as adults in their early 20's (CFLRI, 1996). According to population data, exercise also tends to decline gradually over the span of the life course. Men's levels of activity tend to stabilize around middle age and rise during retirement while on the other hand, women's activity levels continue to drop (CFLRI, 1996). Currently fewer than one quarter of adults over age 65 are adequately active, with only 18% of women participating in regular exercise (CFLRI, 1996).

Attractive, age sensitive programs must be available in order to foster increased participation of exercise among elderly women. However, programs that are currently in place do not influence those who are the least likely to exercise—elderly women living in poverty (CFLRI, 1996). As a result, the Canadian Fitness and Lifestyle Research Institute (CFLRI) has recommended targeting this group to identify their barriers to exercise participation in order to engage them in regular exercise. However, to identify what barriers exist for these women, it is important to understand the implications of living in poverty and its impact on healthy behaviors.

Feminization of Poverty

Understanding the context of the individual has led us to examine why it is that more elderly women than elderly men are living in poverty and therefore less likely to engage in exercise. Canadian statistics reveal that 61% of all older women who are unattached to a male partner live in poverty, moreover, 11 out of 12 women outlive their husbands (Department of National Health and Welfare, 1992). In addition, the average income for women over 65 was $10,000, which is 20% below the poverty line (Department of National Health and Welfare, 1992).

There are a few reasons why women, elderly women in particular, are vulnerable to poverty. The first reason is the financial dependence women have on male partners (Department of National Health and Welfare, 1992). Traditionally men have been the

economic providers while women worked at making a comfortable home. However, when the husband dies the woman's personal poverty, previously masked by her husband's income, is revealed. Further, even if a woman has worked outside of their home, it does not guarantee financial security in their older age (Department of National Health and Welfare, 1992). This disparity is due to the fact that women consistently earn less than men (Department of National Health and Welfare, 1992) and women who are now elderly did not engage in the work force formally and therefore do not have personal pension plans. In addition, this wage gap exists in every occupational category. Moreover, women are consistently poorer then men among older adults in Canada (Brotman, 1998). In 1991 the general poverty rate of older adults (age 65 or older) was 19.8 per cent and men fell below this average while women were above it so the difference between men and women was 10.3 percent (Brotman, 1998).

This abject poverty of over half of elderly Canadian women affects their ability to live a lifestyle conducive to maintaining good health. Furthermore, these women's choices are constrained by the economic context in which they live as well as the barriers that occur when trying to engage in healthy behaviors. In order to develop the range of choices that are currently available to elderly women living in poverty, research must focus on identifying the barriers that occur to this group and further understand how these barriers are related to the economic and political circumstances of these women.

The Influence of Socioeconomic Status on Health Behaviors

Low socioeconomic status influences participation in health behaviors. For instance, men from low-income backgrounds were found to have higher consumption rates of alcohol, cigarettes and lower rates of exercise. In addition, they were more likely to be heavy coffee consumers and eat less fruits and vegetables (Lynch, Kaplan & Salonen, 1997). Women of low social class also perform less beneficial health behaviors than their more affluent counterparts (Pill, Peters & Robling, 1995). In a sample of older adults individuals with higher incomes had better health status and were more likely to participate in positive health practices than older adults from lower socioeconomic backgrounds (Grembowski et al., 1993). This phenomenon is demonstrated in the adoption of exercise as well. CFLRI reports that individuals with secondary education exercise less than individuals with a post-secondary education (64% compared to 82%). Similarly, households with lower incomes consistently report lower activity levels than households with higher incomes (CFLRI, 1996).

This disparity occurs largely due to the greater frequency of undesirable life events, less effective coping strategies and constrained resources of individuals of low-income or poverty status (Clark, Patrick, Grembowski & Durham, 1995; O'Brien Cousins, 1996). Furthermore, those who occupy lower positions in the social structure are resistant to changing risky behaviors as compared to their more advantageous counterparts (Lynch et al., 1997). To understand why an individual makes the choices they do, these choices must be analyzed within the political and economic context in which they occur.

The context of the individual exerts important influences on the availability of options and the process of choosing a particular option (Lynch et al., 1997).

Statement of the Problem

Current research demonstrates exercise the significant impact on the daily functioning and health status of elderly women. However, only 18% of women, over the age of 65, exercise on a regular basis. Several reports indicate that elderly women, particularly those living in poverty, are the least likely to engage in exercise. Researchers hypothesize that this disparity may be due to the constrained resources of individuals living in poverty and furthermore they experience significant barriers due to their socioeconomic status. Few studies have been conducted to investigate barriers to exercise for this population. Therefore, it is timely for research to focus on identifying barriers to regular exercise participation within the poor living conditions of the elderly female adult.

CHAPTER TWO

REVIEW OF LITERATURE

Numerous studies demonstrate the positive effects of participating in physical activity, particularly for the older adult population. Because relatively few older adults participate in exercise and older adult women are most likely to be low-income, current research identifies the determinants of exercise as well as focusing on low-income populations. The following will review recent literature addressing the determinants of physical activity, the relationship between low income and barriers to physical activity.

Determinants of Physical Activity

O'Brien Cousins (1995) conducted a comprehensive study of the determinants of physical activity in older adults. The sample consisted of 327 middle class women over the age of 70 who resided in Vancouver, British Columbia. The sample was recruited from older adult facilities. Data was collected by survey and the following information was collected: age, marital status, education, economic status, health, cultural origin, work role, family size, childhood movement confidence and childhood social support. Using multiple regression analysis, age, health and childhood movement confidence were significant determinants of physical activity. Conversely, education, family size, marital status and work role were relatively insignificant. Positive ratings of health and positive childhood activity experiences positively influence physical activity, while as one ages activity decreases. Inherently it would seem that education and low-income would

negatively impact exercise however the results from the study demonstrate very little impact in either direction.

Conversely, the Canadian Fitness and Lifestyle Research Institute (1996) report that older women, who have no partner or children at home, are at risk of inactivity. In addition, people with higher levels of education tend to participate in physical activity more frequently than those with lower education levels (CFLRI, 1996). However patterns between education and employment tend to be tied to age related patterns of exercise. Adults with elementary school education tend to be in the older adult age groups, similarly, students, homemakers and retired individuals are more likely to be regular exercisers. CFLRI reports that households with an annual income of $80,000 or more are the most physically active while households earning between $40,000 and $60,000 have the least regular patterns of exercise. These results indicate that social support, education and income have a significant influence on rates of physical activity.

Low-income Canadians are financially supplemented with various forms of assistance. This is particularly true of older adults who are older than 65 and are eligible for many supplements. Consequently situational determinants and barriers of physical activity for older adults are difficult to identify and social funding keeps recipients at a minimum income level (O'Brien Cousins, 1998) thereby perpetuating a cycle of poverty, enough to "get by" but not enough to "get out". A further challenge to identifying the impact of socioeconomic status is that researchers tend to study the patterns of well and community dwelling elderly who are more active, better educated and less overweight

and are less likely to reflect biases toward sufficient income (O'Brien Cousins, 1996). For this reason, researchers have suggested that future research be targeted toward specific social groups such as those in poverty status (Clark, Patrick, Grembowski & Durham, 1995 and O'Brien Cousins, 1998), noting that impoverished individuals are more likely to perceive barriers, lack incentive, and lack the efficacy to engage in health behaviors such as exercise.

Understanding the Barriers to Physical Activity

In an effort to understand the factors affecting participation in physical activity, researchers are studying the barriers that may occur for certain populations. Relatively few studies have been conducted with older adult women living in poverty, however there have been studies completed on similar groups. For instance Verhoef, Hamm, & Love (1993) studied female employees age 20-49. Using a cross-sectional survey they discovered two types of barriers, internal and external. Internal barriers were identified as lack of energy, lack of self-discipline, lack of self-confidence, lack of interest, dislike of exercise, being self-conscious and ill at ease. External barriers, in order from strongest to weakest were, lack of time, cost, lack of an exercise partner and getting enough physical activity at work.

In a sample of 226 community women Johnson, Corrigan, Dubbert & Gramling (1990) found lack of time as the most frequently reported barrier to initiating and sustaining a regular exercise program. They also found disinterest in exercise, lack of facilities, lack

of money and lack of partners were much less significant barriers and further differences in perceived barriers were not impacted by age, race or employment status. This study employed a 25-item paper and pencil survey to assess exercise practices and perceived barriers to exercise.

Ziebland and colleagues (1998) conducted a study that aimed to assess whether anticipated barriers to change in exercise mentioned during a health check intervention were related to subsequent behavior changes. The participants, who had expressed an interest in altering health behaviors, were between the ages of 35-64 and were registered with five general practices. A total of 11, 090 described their current physical activity and eating patterns as well as identifying why change might be difficult through a health and lifestyle questionnaire. A year later 2205 individuals were asked to attend a health check and again three years later where 1660 attended. Ziebland and colleagues found two types of barriers were identified, internal and external. Internal barriers for exercise included being busy, not enough spare time, not being good at sport, laziness and not enjoying exercise while external barriers included friends and partners not interested in exercise, no transportation, not being able to afford sports facilities, no facilities nearby and lack of childcare. The barrier of illness or being disabled was excluded from this study as the researchers felt it could be construed as either an internal or external barrier. Sixty-eight (67.9%) percent of respondents reported only internal barriers to change while 11.9% reported external barriers and 21,1% reported a combination of internal and external barriers (Zeibland, Thorogood, Yudkin, Jones & Coulter, 1998).

A fourth study conducted by O'Neill and Reid (1991) attempted to identify perceived barriers to physical activity in older adults. The sample population used in this study was not identified as living in poverty or having a low social class or economic background. Using the Perceived Barriers Questionnaire (PBQ), 19 potential barriers to exercise were identified. The four highest ranked barriers were, in respective order: getting enough physical activity already, tiring easily, current state of health preventing exercise, not being disciplined enough and not needing exercise now that they were older. The authors of this study recognize the research as only a preliminary investigation into the barriers to physical activity for older adults, however, they recommend that future research focus on socioeconomic status and its influences on barriers to exercise participation (O'Neill & Reid, 1991).

Jones and Nies (1996) conducted a study on a sample of older African-American women over the age of 60. The purpose of this study was to understand the relationship between reported exercise and the perceived benefits and barriers to performing the behavior. Using quantitative methods, barriers and benefits were measured by the Exercise Benefits and Barriers Scale (EBBS). Open-ended questions reported health reasons, lack of time and accessibility were key barriers for exercise participation in this population. The EBBS scale listed accessibility, fatigue, fear of the neighborhood and the perception of exercise as hard work as the most significant barriers. Although this study used a sample that comprised the lower scales of the socioeconomic hierarchy, neither

the open-ended questions used in this study, nor the EBBS scale were related to poverty status. Questions were not asked within the context of poverty therefore there is not a proper understanding of whether the barriers that were identified in this study reflect the experiences of being a poor older adult woman.

In a recent study Clark (1999) assessed physical activity and its correlates, including perceived barriers. The random stratified sample included 771 patients who were 55 and older who were selected from am urban primary care center. Subjects were of low socioeconomic status. Information was collected by a 20 minute interviewer administered survey and measured four categories including sociodemographic characteristics, knowledge and perceived barriers, self-efficacy and physical activity. Clark found that perceived barriers to physical activity were very significant. Barriers were categorized into three groups including motivational, environmental and symptom barriers. Motivational barriers were identified as will power, lack of interest and lack of time. Environmental barriers were perceived as crime, weather and no or poor sidewalks while symptom barriers were identified as pain, swelling, fear of chest pain and fear of shortness of breath. Seventy four percent (73.9%) of the female respondents identified symptom barriers while 87.8% reported environmental barriers and 52.0% identified motivational barriers. Fifty nine percent (58.7%) of male respondents reported symptom barriers, 77.1% reported environmental barriers and 50.0% indicated they experienced motivational barriers. In addition, Clark found older age, female gender, fair or poor health and symptom barriers were all associated with less physical activity.

Summary

Older adults, and in particular, older adult women perceive many barriers to participating in physical activity (Clark, 1999) and these barriers have an influence on physical activity participation rates. Moreover because older adult women are more likely to be low income (Brotman, 1998) and at risk for physical activity (CFLRI, 1996) it has become increasingly important to understand the barriers these women experience and how they influence exercise participation.

Few researchers have attempted to survey disadvantaged populations (O' Brien Cousins, 1996; Clark et al., 1995; Clark 1999) and in many respects, much of the current research on older adults is not generalizable to low income populations because these studies tend to include healthier and fitter older adults who are willing to participate in research studies (O'Brien Cousins, 1996). Because existing tools and instruments are not effective in measuring constructs of disadvantaged older adult populations researchers are unable to make definitive conclusions as their validity and reliability are open to question (Clark, 1999). Moreover, specific environmental circumstances will have a profound influence on the barriers older adults' experience (Seigley, 1998) and such circumstances will vary across cities and countries.

To have a clear understanding of the barriers in vulnerable older adult groups, particularly, low-income older adult women, research must begin to focus on targeting

vulnerable and isolated populations who are less likely to participate in research studies. It would seem the barriers researchers face in reaching these groups would also be somewhat indicative of the actual barriers existing for such disadvantaged populations. Furthermore, researchers must study these groups within the contexts they live and glean descriptions and information reflecting the reality of the circumstances in which they live.

CHAPTER THREE

RESEARCH DESIGN

Very few studies have explored the experience of being an older woman living in poverty and the barriers to participation in exercise behavior. In order to develop programs that encourage these women to participate in physical activity, exploratory research in this area is necessary. Therefore a study focusing on identifying the barriers older women experience will provide practitioners with information necessary to develop successful initiatives to increase exercise. This study focused on the barriers of exercise participation for elderly women living in poverty. The aim of this study was to answer the question: What do older adult women living in poverty say are their barriers to participating exercise?

Participants

The target population recruited for this study were female older adults, age 55 and older, who are low-income. The sample was collected from central Edmonton primarily from the Norwood, Central McDougall and Boyle-McCauley communities, which is known as the inner-city, located to the east and north of the downtown business area. This area is by far the poorest, socially disadvantaged part of metropolitan Edmonton (LaRocque, Reininger, Holmgren & Murphy, 1998). There is a high incidence of poverty within these communities as well as increased occurrences of older adult women living in poverty (LaRocque et al., 1998). A non-probability, convenience-sampling method was used to recruit and collect data from a sample of 8 older adult women within a time frame of 5

months. According to Strauss & Corbin (1990), a sample size such as this is sufficient to acquire data saturation. Criteria for inclusion into the study was as follows:

1. Informed consent provided by the participant.
2. An older adult woman, age 55 or older.
3. Low-income, as estimated by their annual income, education and past occupation.
4. Able to speak English fluently.
5. Comfortable about relating their beliefs and experiences to the researcher.

Data Collection

The sample was obtained through a social worker that works with *Operation Friendship*, a drop-in senior's center located within central Edmonton. Participants were also recruited through two long time residents of the central Edmonton community. Both of these individuals have had considerable experience in working with vulnerable populations, particularly impoverished older adult women. All three contacts approached potential participants with information regarding the study and asked whether they were willing to be contacted by the researcher to hear more details regarding the study. The researcher contacted each participant only if they had indicated interest. Contacts were made by telephone if this option was available, or by home visit. At this time the researcher briefly explained the study and answered any questions the participant had. If the participant agreed a time was set up to meet and discuss the study further. During this visit an information sheet was read to the potential participant and

consent was obtained. The Health Research Ethics Board, Committee B of Capital Health, approved both the information sheet and the consent form.

Unfortunately there have been no studies conducted exploring the barriers that researchers experience using qualitative methods with older women. As a result, little was known about what types of methods would be appropriate to elicit data from this population. Because the purpose of the study was to explore what the barriers to exercise participation were for these women, a semi-structured formal interview format was used as described by Morse (1995)(see Appendix A for sample questions and probes). This method was chosen to ensure that sufficient data would emerge to develop a thematic understanding of the influences that barriers have on the participation of exercise in the older adult woman. The purpose of this interview was to elicit information in the respondent's own words a description that would illuminate the key variables that would emerge through the course of the study. There were five guiding questions in addition to the use of several prompts and probes that were used to obtain responses from the sample. As the interviews progressed they became more narrow in focus for specific data as theoretical sampling commenced (Swanson, 1986). Hand written field notes were taken throughout each interview.

The format of the interview was as follows:

1. The interviewer acquainted themselves to the respondent and engaged in "social talk" to establish rapport and comfort.
2. The interview was conducted until all possible avenues to obtain data have been exhausted, usually 45 minutes to 60 minutes.

3. Demographic data was collected including income, education, past occupation, and brief life history.

4. An appointment was made for a second interview.

All interviews were recorded and transcribed and all transcripts and field notes were coded. This enabled the interviewer to develop questions and probes for each subsequent interview. The coded transcripts and field notes were verified by the respondent at the second interview so they could verify the information and elaborate or add data to their responses. Additional questions by the researcher were asked at this time.

The method was pilot-tested on two individuals fitting the criteria for inclusion into the study. The purpose of this pilot test was to determine the efficacy of the questions and probes in eliciting sufficient data. In addition, feedback obtained from the respondents helped the interviewer to perfect their skill in interview technique. The accuracy of transcript analysis was also determined through pilot testing as well. Any feedback that was obtained was used to better the method. Consequently, adjustments were made in the researcher's style of interview questioning in addition to the use of more probes to elicit detailed responses from the participants. Minor modifications to the analysis of transcripts were made as well.

Data Analysis

The method of data analysis used in this study was the constant comparative process as described by Strauss & Corbin (1990). In the constant comparative process, the first step was open coding which is the process of breaking down, examining, comparing, conceptualizing and categorizing data (Strauss & Corbin, 1990). Through line by line analysis each sentence was broken down and labeled or coded according to the following questions: What is this? What does this represent? Labels and codes remained emic in that the actual words of the informants were not altered or interpreted. These codes and labels were then grouped according to observed similarities and labeled with a category name. The categories were then developed in terms of their properties and dimensions.

The second step was axial coding where data was put back together after open coding by making connections between categories and sub categories (Strauss & Corbin, 1990). In this step the focus was to specify a category in terms of the conditions that give rise to it or the context in which it was embedded. Further, additional properties of categories were searched for. This step, as in open coding, was achieved through asking questions and making constant comparisons, however, it was geared toward discovering and relating categories in terms of a conceptual model.

Adjunct to these steps, memoing and diagramming procedures were used. Memos are the abstract representations of the researcher's thoughts about the data where diagrams

are the graphic representations of the relationships between concepts. This aided the researcher in keeping track of the process of analysis and gave further directions for sampling and questioning. These techniques were employed in order to aid the investigator to think abstractly about the data and relate them back to the data to substantiate their reality.

Reliability and Validity

In order to ensure the research results were not biased, an audit trail was kept throughout the entire process that detailed the steps and processes taken to achieve the results. Care was taken to ensure that the method was followed precisely, without allowing the investigator to impose personal thoughts and assumptions into the data. Analyzed data were compared against the coded data of other respondents to ensure the same codes were being revealed. Discrepancies caused the researcher to re-code the data. Moreover codes and labels remained emic in nature and all categories were labeled through statements made by the respondents. Finally, as previously stated, codes and themes were taken back to the participants to verify that what was coded reflected the reality of the experiences that were being related by the respondents.

Ethical Considerations

Ethical clearance was obtained from the Health Ethics Review Board, Committee B and all procedures for obtaining consent, informed consent and confidentiality were in accordance with the requirements of this committee.

Informed Consent

The researcher read the information sheet to the participant during the first visit. The information sheet was read to the participants, as literacy was an issue for many of the women the researcher approached. The information sheet (see Appendix B) explained the purpose of the study, the procedures and the participation requirement. The participants were told that they could stop the interview at any time for any reason and could withdraw from the study at any time without any consequences. Each woman was given a copy of the information sheet and was asked to contact the researcher if they had any concerns or questions. A separate consent form was used to obtain consent (see Appendix C). Each woman was asked to fill out the consent form. In several cases the researcher had to read the consent form and record the consent answers on tape, as the participant was unable to read.

Confidentiality

The concept of confidentiality was explained to all the participants in the study. This aided the women to disclose information and relate their feelings and experiences while maintaining anonymity. All identifying information on the transcriptions and field notes were deleted and were replaced by code numbers, which were known only to the researcher. Interview tapes, transcriptions, and field notes were kept in a locked filing cabinet while all code lists and contact information were stored in a separate locked filing cabinet. Information known to the researcher about any of the women in the study was held in confidence.

Risks and Benefits

There were no perceived risks or benefits to the participants in this study. However several participants did express they were quite happy to participate in the study because it had the potential of helping other older adult women in their situation as well as themselves. In addition, they expressed relating their circumstances and feelings was a positive experience.

CHAPTER FOUR

FINDINGS

The purpose of this study was to describe the barriers to exercise participation from the emic perspective of low-income older adult women. The findings explicating the main barriers, as experienced by the women are presented. First, limitations of sample, selected demographic characteristics and information about each woman who participated in this study are described. Following this discussion, the central six themes and the subsequent subcategories characterizing the challenges faced by the respondents will be discussed.

Description of Study Respondents

Eight respondents agreed to be interviewed and provided informed consent and were subsequently included in this study. They have been given pseudonyms and will be referred to by these names to protect their privacy and identity.

Anne is a 69-year old First Nation's woman who speaks Cree and English. Anne related that she had a sparse education, attending convent schools until the sixth grade at which time she dropped out. Her attendance in school was also very sporadic because her family was constantly moving around, which caused her to change schools frequently. Anne also shared that she came from a large family of nine children of which two, Anne and her younger brother remain living. She was never married and she had eight children, six boys and two girls, of which only two sons are still living. Anne indicated that she and her family were constantly on the move but spent significant time living in

the Peace Country and in Dawson Creek, British Columbia and made her final move to Edmonton when she was 40. Anne worked primarily as a chambermaid in various hotels through out her travels. Anne shared that she has limited contact with her family as her brother and two sons live outside of the city however, she regularly speaks with her family on the phone. She also showed signs of being severely depressed and withdrawn and rarely leaves her apartment; sometimes she "can't even get out of bed". Anne is also a heavy smoker. She lives in senior's apartment housing and requires home-care to help her with housework and shopping and receives the standard income supplements. Anne does not exercise regularly and uses a walker due to an injury to her hips.

Sarah is 84 years old and is of Ukrainian decent. Sarah shared that she was born on a farm in Hamlin, Alberta and attended school there until the tenth grade. She is the oldest of five children of which four are remaining. Sarah also shared that she got married shortly after school and started a small store with her husband. In 1946 she and her husband decided to come to Edmonton with their two sons. They bought a small store, which was run by the family until 1978. Sarah became a widow in 1975. Sarah explained that she continued employment in a department store until her retirement. She also explained that she has a close relationship with her family; they visit her and call her often. Sarah owns her own home but has moved into a senior's apartment complex for reasons of safety as there were many break-ins and robberies in here neighborhood. She also indicated receiving the standard income supplements and has a small savings

put away. Sarah says that her doctor told her she is in good health, however she does not exercise regularly.

Ivy is 89 years old and lives in a senior's lodge. She was born on a farm in rural Alberta and never attended school except for a few weeks a year around Christmas. Ivy related that she spent much of her youth working on her parent's farm until she got married and later, in 1936, moved into Edmonton. In Edmonton, she was employed as a fish wrapper, did factory work, janitorial work and home-care work, holding at least two jobs a day, until her retirement. Ivy shared that she has been a widow for over 20 years and had two daughters of which one is still living. She also explained that she has a large family of grandchildren and great grandchildren but is currently estranged from most of her family for reasons she did not wish to share, however, she has frequent contact with one granddaughter. Ivy indicated that she has poor eyesight, has battled cancer and suffered from a stroke 5 years ago that left her hands weak. Ivy also shows signs of being depressed and withdrawn and shared that problems with her family has caused her to feel this way. She receives income supplements but has no other assets. Ivy participates in a low intensity, group exercise program twice a week.

Shelley is a French-Canadian woman who is 90 years old and was born and raised on a farm in Moosejaw, Saskatchewan. Shelley explained that she never attended school but worked on the farm and helped to raise her 5 younger siblings. At age 20 Shelley left home and found work cooking and cleaning on other farms. She traveled around Western Canada with this job until she finally reached Edmonton fifteen years ago.

Shelley shared that she had never married or had children and she never had a permanent home. Shelley also explained that she has family who reside in Saskatchewan but is unable to stay in touch with them as she does not have a telephone and is unable to read or write. She also indicated that she has arthritis and suffered a stroke five years ago. Shelley now resides in a senior's apartment residence and receives an income supplement. She also says she participates in a low intensity, group exercise program twice a week.

Sally is 72 years old who was born and raised in Montreal, Quebec and is the youngest of 14 children. Sally explained that she moved to Alberta when she was 35 and lived in Hinton, Calgary and Rocky Mountain House before moving to Edmonton 15 years ago. She also explained that her main occupation was as a seamstress although she also owned a babysitting business. Sally shared that she was married three times and is now a widow and has no children. She says she is close with her family, including brothers, sisters, nieces and nephews, and communicates with them over the telephone and through letters as they all live in Quebec, however, she also says she has no close friends or companions who live in Edmonton. Sally indicated that she is currently renting a home in the Boyle-McCauley community and has lived here for over 14 years. She says that her primary source of income is her old age pension and supplement. Sally also shared that she has several medical conditions such as gout, bursitis, high-blood pressure, obesity and cervical cancer and she has also been treated for depression in

the past. She is also a heavy smoker. Sally explained that she is not currently exercising although she would very much like to be exercising on a regular basis.

Linda is a First Nation's woman who is 73 years old and was born in the Northern Territories, she is the oldest of ten siblings. Linda explained that she went to convent school for only one day when she was involved in a life threatening tobogganing accident. She recuperated more than a year later but had pins in her hips, which forced her to use crutches for life. Linda says she never returned to school and is unable to read or write. Instead she helped her mother raise her siblings and later left at age 18 to work anywhere she could get a job, usually finding jobs cooking for various labor camps. Linda shared that she got married at age 27 and subsequently moved into the city in 1962. She has five children and many grandchildren and her husband is still alive but is living in a extended care lodge after having a stroke which left him paralyzed. Linda says she is very close with her family and they visit her often. She also has many close friends. Linda explained that she owns her own home and has lived in the Boyle-McCauley area for over 40 years and lives solely on her old age supplement. Besides permanent complications with her hips, Linda also indicated that she has asthma and diabetes. Linda says she is currently not exercising regularly but is very active socially.

Brenda is a 55-year-old Irish-Scottish woman who was born and raised in Calgary, Alberta. Her parents and five siblings are all settled in Calgary and Brenda also explained that she is not close with her family and does not visit or speak with them

often. She also says does not have close friends or companions, she remains single and has no children. Brenda says she has lived in the central Edmonton community for over 22 years and was employed primarily as a waitress. She completed high school however she says it has been troublesome to maintain steady employment as she has epilepsy and finds it difficult to hold a regular job. Brenda indicated that she currently is receiving Assured Income for the Severely Handicapped. Brenda lives in a small apartment that she rents and says that she has no assets or extra income. Besides epilepsy, Brenda also has arthritis, asthma and displayed signs of having problems with depression. Brenda says she is not currently exercising regularly.

Violet is a French Canadian woman who is 73 years old, the youngest of ten children who were raised on a farm in rural Alberta. Violet explained she is divorced and has nine children and several grandchildren. She attended school until grade 10 and shortly after, began a career as a bakeress at a local bakery. Violet also explained she and her family moved in to Edmonton in 1949 where she continued to work as a bakeress until her retirement. She says she is very close to her family and she has many close friends and socially active. Violet resides in senior's apartment building where she has lived for over 17 years. She also indicated her main source of income as her old age pension and she has no other assets or savings. Violet also indicated that she has bursitis, osteoporosis and diabetes but exercises on a daily basis.

Summary of Study Respondents

The age range of the participants in the study was 55 to 90 years, with the majority of the sample within the seventh or eighth decade of life. Three of the women were single and three of the women were widowed, only one of the women was divorced and one was married. None of the women were employed at the time of the study. Seven of the women had retired and one woman is no longer able to work due to a disability. The women were all of low-income status having an annual income of $12, 000 or less. Only two of the women did not display obvious signs of depression and these two women also indicated that they had significant sources of non-kin social support. Similarly only three women in the study indicated that they participated in regular exercise. A summary of the participant characteristics is presented in Table 1.

Limitations of Sample

The women in this study were recruited through a social worker and two other inner city community residents who work closely with older adults. These contacts introduced the researcher to low-income older adult women who fit the criteria of the study. Recruiting participants for a study is difficult even in the most ideal circumstances, however it was even more challenging recruiting from a socially disadvantaged population where language, mental disabilities, addictions and depression are a common occurrence. The eight women in the study, although they are low income and exhibit many of the characteristics of being socially disadvantaged, are not entirely representative of the inner city. This study was not equipped with the necessary competencies to recruit a

Table 1

Characteristics of Study Participants

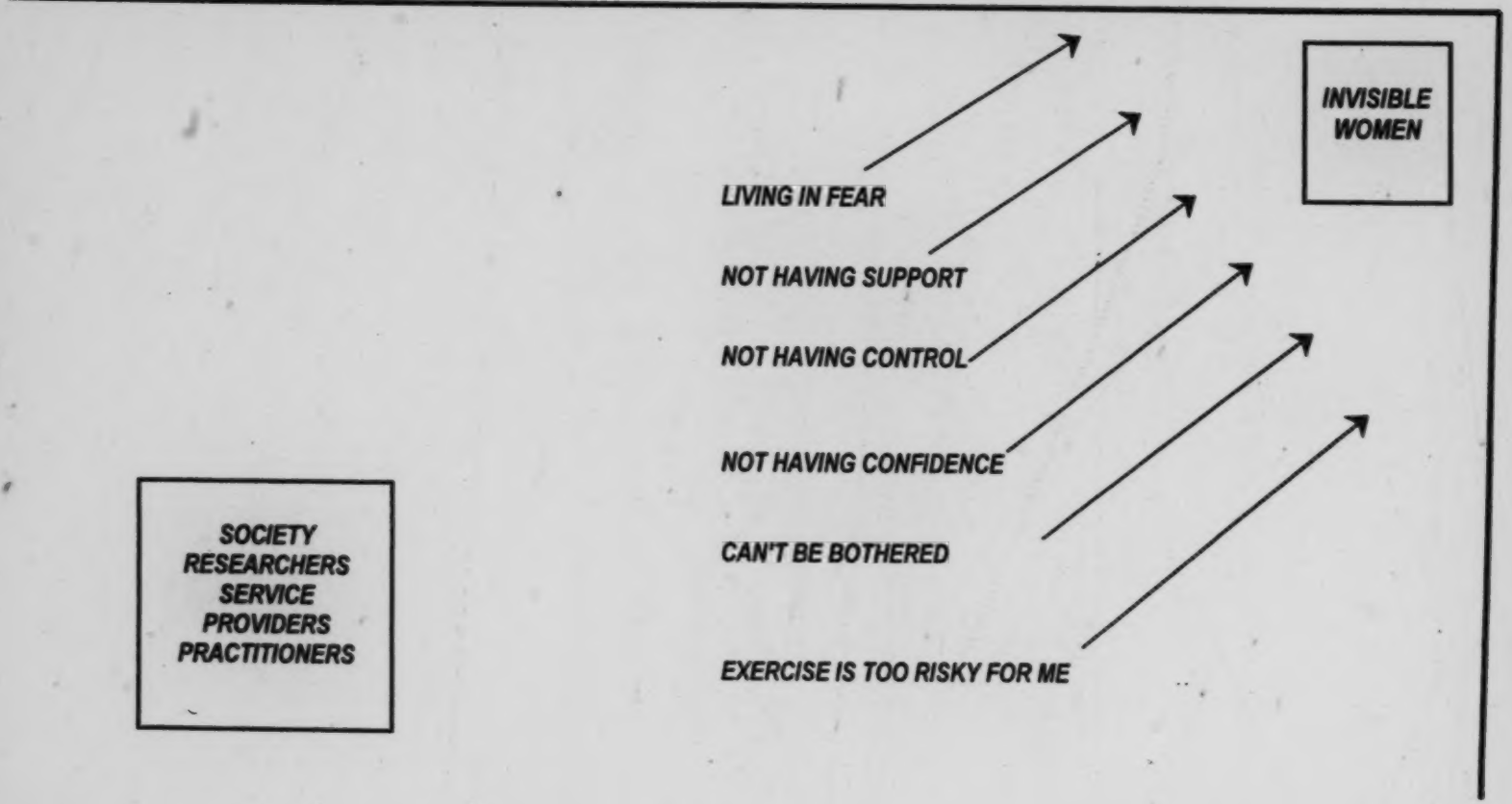
PARTICIPANT	AGE	MARITAL STATUS	EDUCATION	PAST OCCUPATION	ESTIMATED* ANNUAL INCOME	DEPRESSION	NON KIN SOCIAL SUPPORT	CURRENT LEVEL OF EXERCISE
Anne	69	Single	Grade 6	Chamber Maid	$12, 000	Symptoms Present	None	None
Sarah	84	Widow	Grade 10	Store Owner	$ 9,500	No Symptoms Present	Present	None
Ivy	89	Widow	None	Fish Wrapper	$12, 000	Symptoms Present	None	Twice weekly
Shelley	90	Single	None	Cook, Maid	$ 9,120	Symptoms Present	None	Twice weekly
Sally	72	Widow	Grade 10	Seamstress	N/A	Symptoms Present	None	None
Linda	73	Married	None	Cook	N/A	No Symptoms Present	Present	None
Brenda	55	Single	Grade 12	Waitress	N/A	Symptoms Present	None	None
Violet	73	Divorced	Grade 10	Bakeress	$12, 000	No Symptoms Present	Present	Daily

* Figures were estimated based on rent paid at a senior's housing facility, which is usually 30% of the indivijual's annual income.

more representative sample. For instance, interviewing ethnic minorities would require a translator as many of these women do not speak English well enough to relate the information essential for this study. Similarly, working with addiction populations and the mentally disabled also requires special skills and an enormous time commitment of which both were not accessible options. Although the women in the study do not represent the entire inner-city population, they do represent a significant proportion of it as they are older adults, female and poor.

The age of the women this study ranges from 55 to 90. Because of this large range it is difficult to determine if there are any generational or age influences within the data. In addition, the heterogeneity of each participant in the sample is also lost by assuming the needs of a 55 year old woman is the same as a 90 year old woman which inherently, one can assume is not true. On the other hand, many of the services offered by practitioners and service providers cater to the older adult over age 55 so the data revealed in this study will still be beneficial. Although the sample in this study is not ideal because of the wide range in age and the lack of representation of specific populations, the findings of this study are still relevant as there is very little research done studying the socially disadvantaged and their barriers to regular exercise in relation to the social complexities of the barriers that occur for them.

Figure 1. **"Pushed in the Corner": A Conceptual Model of the Barriers to Physical Activity for Older Adult Women**



Emerged Themes

Six main themes emerged from the study of the barriers to exercise participation from the emic perspective of low-income female older adults. They are labeled as *living in fear, not having support, not having control, can't be bothered, not having confidence and exercise is too risky for me.* Each of these themes had sub themes that were identified as being related to the major theme. Figure1 depicts a conceptual model of the barriers that influence the ability to participate in exercise for older adult women. Women feel as though they are invisible and "pushed in the corner" by society and the barriers ensure that the women stay in the corner. The barriers tend to act as a wall the women cannot cross and professionals on the outside are unable to penetrate, leaving the women feeling invisible. The following discussion will describe each of the main barriers in terms of the properties that give rise to it.

Living in Fear

For many women in this study the experience of living in fear was very salient. The neighborhood in which they live has a higher incidence of people on the streets that are rowdy and intoxicated. Moreover there are higher incidences of purse snatchings, swearing and fighting, and prostitution. They perceive their neighborhood as unsafe and are extremely uncomfortable to venture out unaccompanied. Shelley stated it like this:

> "I don't mind to walk. But the kind of people we have, I'm scared of them. If you meet a good-for-nothing, he is going to kill you right there. Or he's going to try to steal whatever you have on you or what. The people are very, very bad. Oh, yes, if you're alone, eh? If you're two, you've got a bit more chance. But if you're alone, I don't like to go for a walk very much." (Shelley)

"It wasn't till after I was settled I realized I wasn't that far from Skid Row, and that terrified me..." (Sally)

In order to manage the circumstances some of the women choose to stay indoors.

However several women manage the circumstances by ensuring that :

1). they always travel in groups:

"Oh, yes. I walk there, and like I said, usually we're always sometimes two, three together. And we keep ourselves in a bunch because—my kids here, they always tell me, 'Mom, you shouldn't be going there alone'..." (Violet)

2). by never carrying a purse:

"I never thought it was a bad area 'till I was walking and I couple native boys came to me and they said...what did they call me...mamma or granny or whatever, I forget what they called me. 'Never carry purse with you in this area'. And I always have my purse. And I said why? They says, 'well somebody is liable to snitch it from you and throw you down and hurt you. Don't, don't, leave your purse at home don't you go around'. So since then I've learned not to carry a purse. Now I am comfortable with out, but then are still times that I wish I had my purse because there's things that you need..." (Sarah)

3). by being very cautious and suspicious of people they don't know:

"Oh, when you're out in the street, you can expect anything...Yes, yes. That's not too far, a month or two that they took the purse off a woman that was living here. Took her money...I watch what I do... I scare easily. Oh, yes, somebody I don't know, eh? Yes, yes. Somebody I know, I not scared of them. There's more I don't know than I know." (Shelley)

4). and by never going out in the evening:

"Usually I don't go out of my apartment, but in summer you can go at seven o'clock, and it's still the daylight of the day. But before it gets dark of any kind, I am home; I have the door locked!" (Shelley)

"It's safe in certain places but only during the day" (Anne)

Some women feel trapped in their homes:

"Sometimes, sometimes I hate it...I feel like a prisoner." (Anne)

Other women have had to change their living accommodations:

"Well put it this way. I was...I moved here in '92 'till then I never thought it was dangerous. No way, and yet it was probably but I never, I couldn't believe it. You know, some how I had a break in, a couple of break ins in the house and at that time it scared me and uh and that's where it started and I decided I better try a senior's home and I didn't sell the home because I thought I may not like it here and I've have to move back to the house." (Sarah)

and find the neighborhood unfriendly:

"It breaks my heart. When I first came here I'd walk out with my dog and I'd say, 'Good morning'. Nobody'd respond. I thought, They didn't hear me. So 'Good morning' again I'd say; nobody responds." (Sally)

The theme of living in fear is a barrier to exercise for these women because they do not even feel comfortable to go for a walk in their community. They are fearful of being robbed or attacked and moreover are aware that such an attack may be fatal. The conditions of the neighborhood invoke feelings of being trapped and imprisoned. As well these women have to make adaptations in their living arrangements to protect their safety. The interplay of these various phenomena fosters fear and intimidation in the minds of these women.

Fear of Falling

Many women also related that the conditions of the streets during the winter season as a barrier to regular exercise. They fear negotiating the icy streets and roads and also fear

that they may fall and hurt themselves. Falling at their age can have a serious impact on their mobility and physical functioning and they are very aware of protecting it.

> "I can't go out in the wintertime. Too icy. I'm scared of falling. I don't go out. I stay here...or I go visit the lodge. I'm close to the lodge. Always the sidewalk is always clean, and I can go there...Wintertime is not very good when you can't walk eh? My legs are not too good anymore. I will fall on the ice" (Shelley)

> "The streets are icy, I'm scared of falling..."(Anne)

> "I find them slippery, that is where I am afraid to walk, they are very slippery...I was afraid to go out too much on account of—so I wouldn't fall, because that was the year before that I had fractured ribs on both sides; I fell down. No, I was just afraid to go because it was—so I wouldn't fall." (Sarah)

> "If I see there's some ice in certain places, I'll make a detour. I won't step on the ice." (Violet)

Financial Strain

A few of the women related that financial income was a source of fear and strain for them.

> "Terrible! Terrible. So income and finances are a real strain for you. Unbelievable, unbelievable. Frightening, *really* frightening. That is something all my life we were trained; we must have enough money to take care of ourselves. You pay your rent, you pay your bills, and then you go and buy the food and the clothing. When I pay my rent and the utilities, I hardly have anything left for food. This is scary; this is scary. It's very frightening, I have no extra money at all, I'm living month to month." (Sally)

All of the women in this study are receiving income supplements such as old age pension but have no additional assets like an RRSP, therefore their monthly incomes are very limited. Not all of the women suggested that finances were a major strain for them, particularly women who were living in senior's housing that adjust rent to 30% of one's income. However, almost all of the women related that they do ok, sometimes scrounge at the end of the month and live cheque to cheque, month to month with little savings.

Although financial resources are not a significant barrier to exercise, limited finances and a tight budget preclude participation in some exercise programs due to the cost of joining, in addition to the costs of fees, transportation and appropriate equipment such as shoes, clothing, weights or any other item that may be necessary to join a program or facility.

Not Having Support

The women in this study expressed that being alone, feeling lonely and not having close friends or family was a barrier to exercise. Having friends or family to exercise with also means the women are receiving support, encouragement and the opportunity to be socially active as well.

> "It would be nice, because it gets boring alone twenty-four hours a day, no phone call, nothing...It's just lonely; it's boring, everything else. You just don't feel like doing anything." (Brenda)

> "Oh, yes. Exercise is a must; it's a must in this life. Walking is very, very good. But [exercising] alone at home is too lonely... Oh, yes, yes. Too lonely to exercise. I have to force myself, and then I'll burst into tears...Because I'm too lonely. I come from a big family, and I don't like being alone...[becomes emotional] Other people. There's encouragement there...Getting out of the house, and making friends." (Sally)

Shelley expressed being alone and not having close friends or family made it difficult to go out for a walk if her regular exercise program was cancelled or not available. If her classes were cancelled she simply would not exercise because the threat to her safety is too high if she were alone.

> "I like to go for a walk, but it's always bothered me to be alone...All those good for nothing that in this world; in the world they should be... No, I don't want to meet any people like that...No, not alone...No. No. No, I don't want to go for a

> walk to be in the middle of the—place...and meet somebody there. I don't want it...Yes, yes. The people so dishonest, they are. It's not very nice." (Shelley)

Another woman described comfort as a key feature of someone who she would exercise with. The person would have to be someone she connected with, who supported her efforts and was not going to push her to exercise too hard or be too slow.

> "I would just to go out for a walk with somebody that I am comfortable with that does not walk to fast or slow or, I am very slow...I used to walk not too bad...But I'm very slow." (Sarah)

Some women made a very clear distinction about exercising with others. If given a choice between participating in group exercise and exercising with a close friend or two they would rather join a close friend. They found the concept of group exercise unappealing and intimidating. They would rather be with one or two people they knew well and were comfortable with than with a group of strangers they did not know. For these women there is a clear social aspect to engaging in exercise not only to the sharing of oneself with another person but it is the "old" way of doing things.

> Anne: Sometimes I feel...like using it and then I say to hell with it, too many people.
>
> Tobie: There's always a bunch of people there?
>
> Anne: Yes
>
> T: And you are afraid of them watching you?
>
> A: Yes!
>
> T: You feel a little bit shy about that?
>
> A: Yes!

> "See, I *still* don't think I would go. I'm not much for exercising in groups maybe; I don't know, huh? A friend? Well, maybe that's different. That would be different. That would be like we were sociable, you know...Well, I've never went to a group for the exercise, so I have no idea what to expect...So in my mind I'm not used to going so I just wouldn't go...that's different, we can have our coffee, like, together and talk for a while and then go out for a walk or something. That's different...But see, I never thought of it, about exercising in groups. They do that nowadays, but I guess years ago they never used to." (Sarah)

Many of these women have serious problems with depression and are extremely withdrawn. Some of these women also have poor social skills. Moreover several of these women are extremely suspicious and go to great lengths to protect their sense of self or will be slightly aggressive if they feel threatened. The researcher while recruiting and interviewing respondents, although not expressed through the primary data, noted these features. Inherently it is easy to understand why these women may remain isolated. Although they desire close companionship with others they lack the initiative if they are depressed to pursue relationships. Furthermore, if they are unable to accurately read social cues they may easily offend or disturb others, which also decreases the likelihood that these women will build new relationships. Ultimately if an individual is unable to trust others the opportunity to meet new people will not expand.

Not Having Control

Two main sub-themes evidenced the theme of not *having control* as a barrier to exercise. *Not having choices* was the sub-theme women described as not having other options or programs to choose from or participate in. The second and more dominant sub-theme was that of *not being acknowledged*. This was related by the women as the feeling of

not existing or being acknowledged by service providers. The following discussion with demonstrates the properties of each of these features.

Not Having Choices

Women in this study consistently reflected *not having choices* was a problem when they were asked what opportunities existed for them to exercise or that programs they would or could participate in were not available.

> "No. It's just that lately it's been very, very hard. I'd say in the last two years, very, very hard to get anyone, to get any services out of them [community senior's centre] at all... They're overloaded. And yet they get good money. I don't know why they should be. But I don't know why they don't hire extra staff, or I know they've got a lot of volunteers...I wish they'd do something to help the seniors that are low income. I find it's not fair. Programs that they would help seniors get out of the house more, like me. I don't find—now they have—because I've asked and asked and asked..." (Sally)

> "I don't know of any, to tell you the truth...Even just a get-together, maybe a cup of tea or something with one another, just to talk. It would make you feel better. Maybe even a game, a game of some kind..." (Brenda)

Most senior's apartments and other older adult independent living accommodations within the inner-city area only have a recreation room with a bicycle or treadmill if such a room exists at all. There are no additional programs or equipment. Furthermore, the bicycle and treadmill did not seem to be options they were interested in:

> "There's no programs, there's a, there's a bike downstairs, there's a room, a recreation room they call it. There's a bike there and then there is other exercise machines, the one that you walk for your heart, you know, that one you know I had the test. If you walk and you just and another one that you kind of pull on it. Then there is the billboard where you can play pool. But I never got interested. You see I'm not used to that." (Sarah)

Sarah shared she was not interested in the bike because physical activity is more preferable to her as social activity. She said she used to being out with people in the outdoors. Riding the bicycle is a solitary activity indoors which is far less appealing.

> "They only have a bicycle...I haven't tried it" (Anne)

Anne also shared she does not like the bike because it is a solitary activity. In addition she feels very intimidated to ride the bike available in the recreation room as she will have to exercise in front of others.

Shelley, who also lives in a lodge, related that the type of services offered was really up to the service provider and she passively receives whatever is provided. In essence she feels she has few choices in the matter.

> "I have nothing to do with that. If they [recreation coordinator of her lodge] want to give us some exercise, they're going to come and do it; and if they don't, they don't...No, they don't offer you nothing. They say, "Oh, we'll have exercise once a week." Or some weeks I've been to two...It depends how they feel, I guess." (Shelley)

Not Being Acknowledged

The second sub-theme of *not having control* is *not being acknowledged.* Some of the women expressed feeling as though they were being treated unfairly, inappropriately and without compassion or empathy. The experiences leave the women feeling invisible, vulnerable and frightened of being taken advantage of. For this reason many women are extremely cautious and suspicious of allowing health and other service providers such as social workers, Homecare staff and other outreach workers to help them.

> "Frightened; when it first happens, you're frightened. Totally frightened. Frightened even of getting older. Terrified, terrifying. But I'm not afraid of getting old now. But for them to do that to me, that's what I was terrified of...I'm dependent on someone, and you treat me in such a manner..." (Sally)

Sally also explained she trusted service providers and health practitioners to treat her with respect and compassion. The more encounters she has with these professionals the more she finds compassion and understanding does not exist. She does not feel as though professionals treat her as a human being.

> "Even as a young teenager I found the company of older people more interesting. I guess the stories they tell and things like that. I've seen a lot of old people in my lifetime, and my heart always reached out to them. I felt a compassion towards them...I trusted—I thought everybody felt the same way. But I find that today it's just the opposite...I phone a few seniors every week, and a few seniors phone me. And the three that phone me are with Home Care the same as I am. But it's pitiful to hear the tears on the phone... Those are the ones I feel sorry for, that need the help, because these people who are supposed to be helping you, they have no compassion towards you...these girls that come to the home, don't forget most of them, they have no training in caring for the elderly..." (Sally)

Sally found that being tough and pushy was the only way to get what she wanted.

> "Or I was determined no one is going to push me around, no one. I'd be out cold if they ever do that to me again. So when they seen I stood up for myself, I got better treatment instead of lolly-dolly nothing. I will not. I will not. But it's there; it's there. If you're not strong enough, it is there. I see it." (Sally)

Sally also related she felt health practitioners and service providers operated with biases and stereotypes against seniors.

> "Every senior is senile. *Where* do they get this idea from! Oh, God, I don't know where they get this stupid idea about how you lose your memory; your memory's slipping...When somebody does that and they are a senior, 'Oh, my God, she's losing it.' It's so stupid..." (Sally)

Linda also shared similar feelings of not being acknowledged and treated the same as

people who were rich.

> "He said, 'Tell them, Sweetheart!' He said, 'I've been yelling here.' He said, 'Nobody's listening to me.' 'Maybe they'll listen to you,' he said. So I told that other guy, I told him, I said, 'You know what?' I said, 'The mayor comes here,' I said, 'you guys put a red carpeting,' I said, 'to come in.' I said, 'You got a bed for him.' I said, 'And poor people,' I said, 'what did they do?' I said, 'You put them on the stretcher and just push them in the corner.' I said, 'He's got the same blood as we have.' I said, 'Why can't we be treated just like you treat him?' 'But,' I said, 'he's no better.' And I said, 'If it wasn't for the poor people,' I said, 'you guys wouldn't have any jobs,' I said...'and you guys don't see it?' I said, 'Why don't you take the dark glasses off,' I said, 'and look at the world, what it's really like,' I said, 'to be out there?' There's so many people are working, trying so hard to make something for themselves, and nobody listens, or nobody cares. It's just like they put you in a corner. They won't—they say, 'She's just talking. She doesn't know what they're talking about'". (Linda)

After sharing this story Linda also shared that although such experiences are frustrating it was a great relief to express her feelings and be heard.

Some women find their education level as a barrier as well. Many of the women in this study do not know how to read or they have a very low literacy rate. They often find service providers and health practitioners operate a language they find challenging to understand. They often have to remind service providers to speak to them in a manner they understand.

> "'Hey, dear', I said, 'come to earth,' I said, 'and talk my language,' I said to him, and I said, 'Don't use the big words,' I said. 'Use the words I understand.' And I told him, I said, 'You know,' I said, 'I wasn't as lucky as you,' I said, 'to use big words like that.' I said, 'I never went to school,' and he said to me, 'You never went to school?' I said, 'No'". (Linda)

Women in the study also felt with little education they were unable to make decisions regarding their health and welfare. They felt they did not have the required knowledge and expertise to make good decisions regarding their care. For this reason

they rely on the advice and aptitude of professionals. In essence, they defer judgement about what is best to them.

> "With no education, the way I am, you don't know exactly what is the best. Because I figure if you offer me something because it's an advantage for me. And that's why...Yes I go any kind of thing they offer." (Shelley)

Other women look for advice from physicians for exercise as well as the types of exercise they should participate in. Some women get detailed, encouraging and precise prescriptions for exercise:

> "And every time I wanted to go out, I called the DATS the day before, and they'd come and pick me up, and they'd bring me back. And Dr. Peters asked me, he says—that's my doctor—he said, 'how do you get around?' I said, 'I call the DATS.' He said, 'No, no, no, no, no. I want you to drop the DATS, and I want you walking as much as you can.' So that's how come—that's how come I do it. He said, 'Don't over do it. Just walk maybe a block, and if you feel that you're too sore or you're tired, sit down and relax for a while, and then take off again.' And I can honestly and truly say that since he warned me about this, that my knees still bother me but not like they used to before. It's been roughly two years. But ever since Dr. Peters told me that, 'Walk slow. Walk', and he said, 'Don't overdo it. If you see it hurting to much, stop and relax. If there's a place that you can sit, sit down, and then take off'. So that's what I've been doing all the time" (Violet)

Unfortunately other women do not receive the same levels of encouragement or advice from their doctors.

> "Well, my health, I went to the doctor the other day because I had to have my check up and there's nothing wrong with me so I can't complain except that I am just tired and she said I'm tired because I don't exercise...She said [do] the bicycle because she knows I can't walk out in the icy sidewalks. Yeah she said to do the bike. (Sarah)

This is significant as Sarah expressed she is not interested in riding the bicycle and would prefer different activities. Her doctor made no other suggestions nor did she present alternative indoor exercises for her to participate in.

In other cases women find it difficult to get into programs they wish to be involved with. For example Sally, who is extremely overweight requested to be referred to a specialized exercise program at the Glenrose Rehabilitation Hospital. This was a concern for Sally as she is extremely obese and as a result her mobility is limited. In fact, she requires the use of a cane for walking. She felt she needed to be in a supervised exercise program but her doctor would not refer her. The experience left her feeling as though no one cared that she was in such an unhealthy state.

> "No. I told my doctor years ago that I wanted to get in it, and he kept on saying he couldn't get me in it, he couldn't get me in it. He says, 'I don't see why you can.' He says, 'You're doing good on your own. You've lost a lot of weight. You've lost all the water.' I says, 'I want to get in it.' He says, 'You've got to have arthritis to get in it,' rheumatism or arthritis. I says, 'I want to get in it to tighten up my tissues back to where they were before and,' I says, 'to prevent rheumatism or arthritis.' I says, 'I've got to get exercising again,' and I says, 'I'm too heavy to do it alone here in the house. It's too dangerous for me.' No, no, nc, no, no, no." (Sally)

The years passed while Sally continued to badger her doctor to refer her to the Glenrose exercise program. During these years Sally became increasingly obese and also suffered a serious bout of depression. Despite these circumstances, Sally still felt exercise was important for her health and her well-being. In order to get some attention and care from someone Sally did the following:

> "So a couple of years passed by, and nothing happened till I picked up the phone. It was three weeks ago. I said, 'I've got to shock you people, and I've got

> to get them to do something for me. They let me sit year after year; nobody cares.' Nobody seemed to care what was happening to me, but I cared what was happening to me. So I picked up the phone, and I thought, phone the Mental Health Department, you see. So I phoned the Mental Health Department and I said, 'If you don't want to find me swinging from the beams,' I says, 'you'd better get me in the Glenrose exercise program.'" (Sally)

Within a day or two Sally had someone at her door for an assessment and she was subsequently referred to the exercise program. She says she can't wait to start!

Can't Be Bothered

The fourth theme that emerged as a barrier to exercise was *can't be bothered*. As this theme emerged four main sub-themes became visible which were conceptually labeled *exercise is good for nothing, no interest, no ambition and feeling gloomy*. The following section will detail the specific properties and conditions that give rise to this barrier.

Exercise is good for nothing

A few of the women mentioned they felt that exercise had no value for them. They suggested they really did not need it and just could not be bothered to exercise. They also perceived exercise as a waste of time and they did not like to exercise. They never exercised before and were able to do everything and felt they really did not need to start now they also felt that they were too old to exercise

> "I'm 84 years old...you can't expect me to run around any more! So I think I've done all the exercises that I, you know that I could do. You know I walk , maybe that's why I'm ok as far as you say. I'm 84 and I'm still able to laugh, huh. Yeah. I did start using the recreation room in the fall but I got too lazy to go downstairs, I didn't think I needed it...I might like it but it's really too late to start" (Sarah)

> "They probably don't like it, or else they think it is no good for nothing or what, a waste of time or what." (Shelley)

"I don't really have to, I've never done it before. I worked all my life time...I never did take exercise before, and I did everything; I did everything...I figure I don't really need it... I was busy doing things and I didn't figure I needed it...I don't need it now either...No I don't think I need any more." (Ivy)

No Interest

Some women find that there are more interesting things that keep them busy so if they had to choose whether to exercise or not they often choose to participate in activities that are more interesting or productive.

"I have some other things to do. I'll come home and I'll work on books I've read and still help with the food bank and I go there at least six times a month. So I'm still involved. I try to find work to do that I like...if it had been a few years ago when I had a home then I would like the gardening. Outside work. I like that, that would be the exercise I would have...I'm used to being outside with the people...I usually find something more interesting to do" (Sarah)

"Because I keep busy...I clean up my room, I sort my clothes, and when I come back they're all messed up. Sort them over again...keep my room clean...It keeps me busy" (Ivy)

No Ambition

Other women expressed they had an interest in exercise and understood the value and the benefits of exercise but had no ambition to exercise. They feel that some days they just can't get going or they keep starting and stopping and starting and stopping. They feel as though they need someone to help them get going and keep their motivation so they keep going.

"I don't know. I start and then I quit and then I start again and I quit..." (Anne)

"I'd go, there was somebody that would get us started, I'd go. Right uh huhh...I have gone a few times on the bike there with one of my neighbors here but we uh don't make a habit of it. We could make a habit of it, but then sometimes she can't go and sometimes I don't feel like going...I would have to make my mind

up to go on that bike and ride the bike and that's my only alternative I have now...and if somebody would push me. I'd have do it." (Sarah)

"I suppose it would be when you're feeling well...I just haven't got the ambition to do it. " (Brenda)

Feeling Gloomy

Many of the women seemed to be depressed and withdrawn, which can be noted from the condition of their living environment as well as their body language and demeanor throughout the involvement in the study. I also had opportunity to watch some of these women interact with other seniors and their social workers. These encounters have allowed me to derive conclusions regarding the psychological state of these women. Although many of these women will not and have not admitted being depressed, the researcher is able to conclude this through observational data. However one participant, Sally, freely admitted she had problems with depression and received professional treatment for the condition. Some of these women have a history of sexual and physical abuse and one woman is completely estranged from her family for allegations of elder abuse. Some women's homes are also in chaos with piles of garbage, mounds of clothes and unopened boxed piled from one end of the home to the other. They just do not have the energy needed to tackle these tasks and are feeling too gloomy to exercise and cannot bring themselves to leave their home much less participate in exercise.

"Except for days like this, you just haven't got the ambition...you're just run down. I just haven't got the strength...who wants to exercise?" (Brenda)

"This is hard...some times I don't even feel like waking up and get myself something to eat..." (Anne)

"Well yes. Who wouldn't get depressed?" (Sally)

> "My life has been terrible. It's what people was doing to me, but I just wouldn't tell. I'm ashamed how I was treated...I tried to change it...people couldn't see any good in me not matter what I did for them. They did everything to me...they think it's all my fault but I never bothered nobody. So I never went out...I was a little upset if anything went wrong...just couldn't please anybody, no matter what I did. And now I'm trying to get it over with." (Ivy)

Not Having Confidence

Not having confidence was another barrier to exercise participation for these women. They had a fear of possibly being pushed too hard or being forced to participate. For example, some programs are too clinical and prescriptive:

> "I don't know. I've got enough exercise as it is now without going to exercise with a bunch of ladies, and maybe the first thing you know, one lady is going to say, 'Oh, you've got to do it like this' or 'You don't do it like that.' No, I won't take that." (Violet)

> "I still will be hesitant...It depends how they're going to exercise...Because there is maybe certain exercises that I cannot do. I never thought of it but I would just go out for a walk with somebody that I felt comfortable with that does not walk too fast or slow." (Sarah)

This makes the women feel vulnerable. They fear they will not measure up and if they don't the experience could be humiliating and embarrassing. Such an experience will be avoided at all costs.

Others feel that they just can't do it right:

> "Just when they come down here I exercise but I don't do it right because I don't see good. I do a lot of things wrong" (Ivy)

The women feel as though they do not have the capability or the skills to exercise. In this situation the feelings of "not doing it right" are exacerbated by poor vision. Ivy was

overwhelmed by her exercise classes; feeling as though everything was far too complex for her. This combined with her poor vision creates the belief she just can't do it.

Exercise is too Risky for Me

Another barrier that was related by all the women was the physical ability to be physically active. All of the women in this study have a various combination of disabilities, diseases and physical condition and they found this to be a significant barrier to exercise. In addition, in some cases they experience high levels of pain, which hinders their ability and desire to participate in exercise. Three of the women use walking aids which also is a barrier to exercise, as they are not able to bear weight.

> "I've got a walker...I don't know when I start my hips hurt...I had to stop when I hurt my hips...I was in the hospital there for a long time because of my arthritis." (Anne)

This is significant because for many women, who are poor, the affordable way to exercise is a regular walking program. Often they do not have the opportunity or the money to spend on equipment or exercise programs. So, if they are not able to walk freely they are also not able to exercise.

Other women experience enormous amounts of pain and generally feel tired. In addition they feel that their chronic conditions and diseases may be inflamed or predispose them to be unable to exercise.

> "You've got pain and tiredness. You just haven't got the ambition to do it. I just haven't got the strength to; and pain...That's usually when the bad days happen, is when the arthritis really bothers me. Unless of course I have a seizure or something. Sometimes after a seizure I'm just to weak now. What would I change about my life? Much better health, I'll tell you that." (Brenda)

"I have got arthritis. Look at my hands. (Shelley)

"I've got bursitis in my fingers and my muscles, and I can't handle my vacuum, and I can't lift my arm to dust...Yes, yes, because when you've got to walk, your knees always move around. And like I said, when I first started, it was hurting. When the tears come down, it hurts. What I would like to change is take my diabetes away and my osteoporosis. That's one thing that I would like to chase away...and my bursitis." (Violet)

There is also the perception exercise is too risky to pursue, exacerbating preexisting conditions or causing new incidences of pain or disability.

"I stopped because I was too heavy to exercise. And right now I hold on to the treadmill, and I lift my legs up and down, And I've got my little weights to exercise the top of me...I could hear my heart pounding away in my head. *Bang! Bang! Bang!* I also have cancer, gout and bursitis. Sometimes when I exercise I bleed from the cancer...it's cervical cancer" (Sally)

"No I can't do any exercises. Yes and I have a hard time bending, or on the days I got—I can throw the pins out of my—because I have four of them...I had two hip operations. I never used crutches when I was young but when I got older I had to use crutches...my balance wasn't that good. Your mind says go! Go! Go! And your body says no! no! no!" (Linda)

"I had a stroke in this hand so it doesn't work as good as it could. I had an operation. I had a seven-pound tumor...the fattest tumor they ever saw. And I had two operations for gallstones. I had my appendix taken out. I had something in my spleen, and they took that out. And I had an operation here not too long ago. They took out a chunk of my liver and they took out five feet of intestine; I had cancer. So I got two feet of intestine now. So it makes it hard." (Ivy)

It seems evident the women in this study perceive their health conditions as limiting their ability to participate in regular exercise therefore presenting a real barrier to participation. In addition, women who perceive exercise as risky or inflicting more pain or injury will avoid exercise and women who have mobility related concerns encounter more barriers, as there are fewer options available to them.

CHAPTER 5

The following chapter will discuss each of the six themes in detail and will also compare and contrast the findings of this study with other studies. In addition the chapter will detail the challenges and weaknesses of the study as well as the weaknesses that were encountered while conducting the study. In conclusion the implications of the study as well as directions for future research in the area will be discussed.

DISCUSSION

Living in Fear

Almost all of the women expressed that *living in fear* was a major barrier to participating in exercise. The source of this fear is primarily due to the conditions of the neighborhood. There is a higher incidence of violence in their neighborhood and more importantly the perceived threat of violence against them is extraordinarily salient for these women. It is interesting to note that the fears of these women seem to be in negative proportion to the number of years the participant has been living in the neighborhood. For instance, two of the women in this study raised their children in the community and have lived in the area for almost 40 years or more. These women expressed less fear, and limited their activities less than other women who have lived in the community for shorter periods of time. In addition these women recognize the neighborhood has changed and is different but they have not felt the same need as the other women to protect themselves or their belongings. The reason for their altered perception could be because they have grown accustomed to the changes in their

community and therefore feel less threatened by the increase in violence and crime while conversely women who do perceive a real threat and fear of the community might have lived in nicer and safer communities before and are unable to adapt to the changes in their environment.

Whatever the reason, the importance is to know and acknowledge the fear these women experience is real and has a profound impact on whether they can participate in the only form of exercise that is available to them which is walking. Moreover, many of these women do not drive so their main means of transportation is walking. When they are living in fear they are less likely to venture out and more likely to spend more time inside their home alone. This has a tremendous effect on their ability to meet with friends and establish relationships and networks with others which also decreases the likelihood that these women will be able to access the necessary programs and services required to meet their needs. As a result of living in fear, they do not trust easily and are extremely suspicious of others.

Benson (1997) reviewed research addressing fear of crime among older adults. This review revealed the fear of crime is prevalent among community dwelling older adults. The review also revealed fear of crime was a social problem negatively interfering with the social, functional and health seeking behaviors of an already vulnerable population, compromising their quality of life (Benson, 1997). Benson argues, to escape or avoid crime, the older adult may experience accelerated changes of aging. The individual may

leave their home less which leads to decreased opportunities to exercise and a possible subsequent compromise in functional and mobility ability; less shopping trips which result in poorer nutritional choices; fewer visits to the doctor or other medical personnel that may result in less adherence to required medical regimen; in addition, infrequent outings contribute to a decreased opportunity to interact socially. Benson further suggests a positive feedback loop is created with the older adult feeling vulnerable which leads to the fear of crime that subsequently leads to the older adult modifying behavior which then leads to more decline and an increased sense of vulnerability.

Low-income older adults living in an urban area had few resources for coping with the ramifications of crime. More than half of the respondents felt that fear of crime was a issue for them. Bazargan (1994) also found women reported the greatest fear of crime and that this fear of crime was associated with loneliness, lower education levels and living in housing not limited to the elderly. It was also found living with fear also had an impact on modifying lifestyle therefore these older adults had infrequent outings and in addition reported poor psychological well being (Bazargan, 1994).

Not Having Support

The women in this study reported feeling lonely was also a significant barrier to their participation in exercise. They did not feel like they had support and encouragement and in addition they felt as though they needed a partner to help them stay motivated, focused and to make exercise more enjoyable. It seems these women viewed exercise

as a duty or a chore and felt having a partner would make it more of a social activity and therefore more enjoyable. Moreover these women are isolated to the extreme. Many of the women in this study do not have close friends or family and feel very lonely and isolated. They do not have the opportunity to express themselves, connect to others and share their feelings, thoughts and fears.

The theme of *not having support* in this study is related to a well-known construct in the literature called social support. Social support, and specifically encouragement to exercise, has been demonstrated to be a significant predictor of exercise in late life (O'Brien Cousins, 1995). However as indicated by the women in this study the social support network is very weak. Families of women may fear injury or harm as well as hold negative stereotypes and norms of the elderly and therefore may not provide encouragement to exercise. The older adult also requires social support from non-kin members to exercise (Clark et al., 1995; Wolinsky, Stump & Clark, 1995) however it is likely the case that many of their friends may be ill, less mobile, inactive or deceased. In addition if the peers of the women in the study are experiencing similar barriers and life situations of the women in this study they too may be isolated and be unable to provide support, encouragement and motivation to exercise. In fact, Rhodes et al., (1998), suggest that a successful approach to eliminate the negative association between lack of social support and regular exercise is the linking of social interaction with physical activity.

For the women in this study, feelings of loneliness are far more salient than the need to exercise. These women are severely isolated and have very few, if any family or friends to interact with. It is in fact a basic need of acceptance, understanding, comfort and care that is not being met. Many of the women in this study in addition to women the researcher has met, spoken to and observed during the course of research, have severe mental and social functioning impairment. The women are unable to respond to society according to the prescribed norms and are subsequently outcast, ignored and shunned. In some circumstances, this has occurred with family as well. There is also a higher incidence of drug and alcohol addictions within the inner city as well and these women also experience a similar sort of isolation and loneliness. Before addressing the lack of social support for exercise, intervention must also focus on reducing the experience of isolation for these women.

Not Having Control

Many of the women in this study shared they did not feel as if they had choice over the types of programs available to them. The programs and services also largely depend upon where the woman lives. For instance senior's apartment housing typically do not offer regular programs but will have a recreation room with various equipment such as a treadmill or bicycle. For women who reside in apartments these are the only choices they have for exercise and as indicated by the women in this study, they are not interested in using them. Women who reside in lodges may have regular exercise programs that are held on a weekly or biweekly basis however these programs are also

limited in terms of equipment, funding, space and time. Each lodge has an activity coordinator but often the coordinators find that their knowledge of exercise is limited and the time they have to devote to exercise programs is constrained by other demands of their position. In addition, they also lack proper equipment to deliver programs that will meet the needs of the various residents of the lodges. Although the programs are offered they may not have hand weights or leg weights or resistance bands but instead use beanbags and balls. Although using this equipment will help with co-ordination, balance and mobility, weight training is necessary to maintain and build strength as well as to decrease the impact of bone diseases such as osteoporosis (Taunton et al., 1997). In addition weight training has a significant impact on bone density which also will mediate the deleterious effects of a fall.

Community dwelling seniors have even fewer options. Often their choices only include a self-monitored walking program or they may (but not likely) have exercise equipment in their home. There are no facilities available to them that offer regular, indoor programs or equipment at a cost affordable to them in addition to adequate transportation. Community dwelling older adults usually have lower disposable income due to the costs of rent and maintaining a home and do not have the extra money to buy a gym membership which can cost upwards of $35.00 a month. In addition, there are no gyms or recreation facilities in the immediate area in which they live so transportation and the cost of transportation is also an additional challenge. Moreover, if there are programs available to these women, they are not aware of it so information and access are

additional barriers. This finding is significant, as it has been found that the awareness of available activity opportunity is a determinant of participation (Stead, Wimbush, Eadie & Teer, 1997).

The women in this study also shared they did not feel acknowledged by service providers who were responsible for their care. The women consistently reported not having their needs met and also having to beg or plead for a certain services to be provided. This left them feeling inhuman and as if they were pushed in the corner and invisible to those around them. They feel ignored and that no one cares for them in any way. Although expressing themselves, in some cases vehemently, was a positive and empowering experience, for most the circumstance of not having needs met was an extremely dehumanizing, frustrating and disempowering experience. Moreover, it has particular deleterious effects on women who are living in poverty making them feel as thought they are invisible to the "outside" world. Not only are their physical activity needs not being met, but in the eyes of these women, service providers such as social workers, outreach workers, Homecare staff, nurses physicians and other community workers, who are trusted to provide compassionate care, are not providing adequate service. The experience breaks the spirit of the individual and further breaks a bond of trust that must exist between the service provider and the recipient of care.

An additional barrier that emerged was the insufficient advice provided by doctors regarding adequate forms of exercise. In most cases the physician is the only source of

information the women have regarding exercise, particularly in the case of poor women who have less access to such information through other means. There is also a tremendous amount of trust placed upon the physician to provide adequate care and advice. In these cases, the physician must provide information that will help older adult women to exercise in a safe yet beneficial way. This requires detailed advice on the forms and types of exercise that are adequate for the women as well as referrals to affordable programs or sources of information older adult women can use to make appropriate decisions regarding exercise. Obviously this requires a collaboration between geriatric physicians and community service providers which currently does not exist, however, such a venture may be necessary to adequately provide for the needs of these women in an efficient manner.

Can't be Bothered

Women in this study also reported they could not be bothered to participate in exercise. The reasons for this view were many and included the perception that exercise was good for nothing, a lack of interest in exercise, no ambition and feeling gloomy. The women shared they thought that exercise was a waste of time and they had been active all their lives and were able to stay fit so why bother starting to exercise now. In essence they felt like they really did not need it. They also expressed that there were more interesting things to do other than exercise and they were "keeping busy" with those activities which in actuality is a substitute for regular exercise. Other women also reported that they had worked too hard earlier in their lives and did not need to be bothered with it any longer.

They felt that they had accumulated enough exercise over the years by working hard in their respective jobs that there was no need for that now.

The women in this study also expressed they lacked the ambition and motivation to exercise. They understood the benefits and value of exercise but just can't get going or if they do start they quit and start over again repeatedly. Sarah thought if someone would push her to get her going on occasion, she could keep it up on a regular basis. Other women also reported feeling gloomy was a barrier to exercise. In general they felt down and blue and not able to get going. Anne shared that some days she has a hard time getting something to eat. Through observations and field notes it has become evident to me that depression is a prevalent phenomenon in the experience of the female, low-income older adult. Many of these women do not feel as though anyone cares for them or their well being and they begin to wonder why they should care for themselves. Although studies have shown exercise can mediate the effects of depression it makes inherent sense if an individual is already not exercising they may lack the motivation and initiative to begin an exercise regimen. Depression combined with the lack of opportunities, choices, low social support, the perceived insensitivity of service providers and constrained finances makes the challenge for the older adult female adult to participate in regular exercise extremely difficult.

Not Having Confidence

Some of the women in this study indicated that not having confidence was a barrier to participate in exercise. They fear being humiliated or embarrassed and also feel they may not be competent enough to participate in an exercise program. This phenomenon is similar to the construct of self-efficacy, which has been studied intensively in the literature pertaining to older adults and exercise. Self-efficacy or efficacy expectations are the judgements one has of personal competence related to certain behavior. Self-efficacy is considered to be the strongest predictor of exercise adoption (McAuley, 1993, O'Brien Cousins, 1996) and moreover, older adults with both low income and low education had average exercise efficacy scores that were 20 percent lower than older adults with middle income and education (Clark et al., 1995 & Grembowski et al., 1993). In addition, individuals with a high sense of self-efficacy tend to approach more challenging tasks, put forth more effort, and persist longer in the face of obstacles or stressful stimuli (McAuley, 1993).

Clark (1996) presented a model of factors thought to influence efficacy expectations. He proposed older age, female gender and minorities were predisposed to lower income, occupation, and education levels. This influences the ability to access material and non-material resources and ultimately decreases the individual's sense of control. Each of these factors also contributes to poorer perceived health, early onset of chronic conditions and functional impairment, which has an ultimate effect on efficacy expectations (Clark, 1996). In a similar study Conn (1998) tested a path analysis of self-

efficacy and related constructs. It was found that perceived barriers and self-efficacy expectations exerted the most influence on exercise participation. Further Conn asserts a relationship between barriers and self-efficacy which suggests the perception of barriers impeding progress toward regular exercise is a strong determinant of the older adult's estimation of their ability to actually participate in regular exercise (Conn, 1998).

The above mentioned studies in conjunction with the experiences related by the women, provide support for the data that emerged from the study at hand. Because self-efficacy is a predictor of late life exercise and is further influenced by socioeconomic status and perceived barriers it seems reasonable to assert not having confidence is a significant barrier for the women in this study.

Exercise is too Risky for Me

Ability related to health problems also emerged as a barrier to exercise. All of the women in this study reported having chronic conditions as well as diseases that posed an increased challenge to participating in exercise. In particular almost all of the women reported arthritis in the lower body or other significant lower body limitations. These limitations are significant as the major source of exercise for these women is walking which requires the use of the lower body. Significant and painful conditions of the hips and knees can severely limit the duration, intensity and frequency of exercise participation and can provide the bearer of these ailments a perceived sense of risk and worry in participating in exercise. For instance, the fear of experiencing pain can be a

hindering factor in participating in exercise but if there is also the fear of injury and experiencing even more pain the individual is more likely to avoid participating in such exercises despite the fact that exercise may in fact improve their condition.

These findings are similar to the findings of Wolinsky, Stump and Clark (1995) who found that the greater the lower body limitations, the less likely the individual would engage in regular exercise. Perceived health was an important predictor of exercise with individuals who perceived their health to be poor having a lower likelihood of participating in exercise (Wolinsky, Stump & Clark, 1995).

Despite the effects of the chronic conditions and diseases many older adult women experience, exercise has a significant impact on mediating the effects of these conditions and more importantly can prevent further decline and deterioration. Several studies have shown moderate amounts and intensities of exercise can have a significant impact on the physical functioning of the older adult as well as improved health and a reduced risk of mortality (Blair & Connelly, 1996). Even more significant is the risk of severe functional limitations and increased risk of mortality that may be exacerbated by inactivity (Simonsick et. al, 1993). Women in this study experienced physical limitations and viewed health problems as an opportunity to excuse themselves from physical activity. However, it remains crucial for them to participate in a regular exercise regimen as physical activity can positively mediate these conditions and possibly prevent the

occurrence of newer limitations. For this reason, physical activities that are appropriate to physical limitations must be readily available to women.

In summary, all but two themes emerging from this study are validated by existing research. *Living in fear* and *not having control* were different than the findings of previous studies, which suggests the situation of being female, poor and older may bring about a set of circumstances that are unique from other populations. Although the sample in this study was limited to eight low-income women in the inner-city of Edmonton, the fact that the barriers indicated by these women have been discovered in previous research enhances the reliability and validity of the emerged findings. More importantly, the findings were analyzed based on the emic perspective of the women, which adds additional voice and power to the data. Therefore the findings are not only significant because they correspond with existing data but because they reflect the reality and rich experiences of low-income women who are extremely understudied.

The findings of this study are similar to the findings of other studies researching the barriers to physical activity. Barriers such as cost, lack of social support, inadequate facilities, disinterest in exercise, keeping busy, lack of transportation and poor health are cited in almost all of the studies. Furthermore, middle income participants were the main source of information and all of this research was quantitative in nature. In the one qualitative study I found, Clark (1999) found, using focus groups, that different barriers of crime, weather and poor sidewalks were significant for low income, older adult women.

The findings of the current research are unique because each woman in this study was interviewed one on one, in depth and detail. For this reason the experiences related by these women are rich and reflect a real look into the lives of a small group that is relatively invisible to the rest of society. Although the women in this study relate many barriers that have found in other studies, the findings offer a unique perspective because they are embedded within the larger context of the compounding barriers of being poor, older and female. This triple whammy effect may mean each of the barriers the women experience are more difficult to overcome than people who are not poor, a woman or elderly.

The barriers of *living in fear* and *not having control* are significant findings as they are experienced to the extreme in low-income, older adult women. In addition, the findings of this study are rich and powerful because they reflect the experiences of these women enabling them to voice their perspectives and feelings. For the purpose of this study, the voices and stories of these women alone imply the significance of the barriers they experience.

Limitations and Challenges of Study

Although the purpose of this study was to examine the barriers of the least socially affluent in society, it became apparent during the course of research that the participants in the study, although they are low-income, are not the poorest of the poor. Within the inner-city of Edmonton, there is a high incidence of mental illness, addictions, isolation

and depression (LaRocque et al., 1998). It became evident to me that these women are the least likely to participate in research studies. Many of the women I spoke to or tried to recruit simply refused to participate because they did not trust me or were fearful of the implications of what they said. In one case a woman, who had initially agreed to be in the study, immediately tore up my field notes after discussing how scared she was of her neighbors. She shared that she was afraid that she might be found out by her neighbors and would subsequently suffer the consequences of expressing her fears.

Other women would agree to be in the study but would not show up at our scheduled time to meet. It was also difficult to find the women after the initial introduction as they did not have telephones and would ask me to meet them in one place or another, often they would not show up. There is also a higher incidence of mental illness among individuals in the inner city. As a result, there were circumstances when women I would approach would appear lucid but during the course of obtaining consent or the initial interview I would discover that the participant was unable to relate her story in a coherent manner.

A related challenge is the increased proportion of ethnic minorities residing within the inner city who did not speak English. Although many of these women would have liked to participate in the study, I was unable to include them within the study as I did not have access to a translator.

The above mentioned challenges were significant as they contributed to the major limitation of this study which was the ability to reach the least socially affluent members within the larger Edmonton community. The sample in this study does not represent a significant proportion of ethnic minorities, mentally disabled, or individuals with addictions. Not having a proportion of these women included within this study limits the applicability of the study to the Edmonton inner city population as well as other inner city populations that possess residents with similar characteristics. More importantly the voices of these individuals were not heard therefore the context and reality of their experiences are not reflected within this study.

Another challenge that occurred within this study was the ability of the researcher to establish a trusting relationship with the participants within the study. It is important with in qualitative research to establish a rapport with the participants, however, it is even more crucial in dealing with a socially disadvantaged population. They are already suspicious and mistrusting of researchers and service providers so the relationship is quite fragile. They are reluctant to share their stories and experiences, this is further exacerbated if the woman is depressed, withdrawn and lonely. In order to elicit data of quality, sufficient time must be spent with each participant. This means that before an interview takes place a period of "hanging out" time is required to establish rapport. Although the time available to me was limited, I was able to "hang out" with most of the participants within the study, however, I am cognizant of the fact that if I were able to

spend more quality time with each participant I would have been able to establish a better rapport and thereby improve the quality of the elicited data.

The quality of the data is an additional limitation of the study. Some of the women were only able to provide one-word answers to my questions or provided very shallow explanations and responses to what was asked of them. Although the elicited data was sufficient to reveal six significant themes, I am aware that richer data would contribute to themes with better defined sub-themes, properties and features. Moreover, richer data would have enabled the analysis to progress beyond a conceptual model to a model of how barriers impact exercise participation.

It is an old research adage that those who are most in need of services are also the least likely to participate in research. It again has proven true within this study. It would be succinct to say that if the barriers to accessing such populations could be eliminated from the research processes, the barriers to providing adequate, efficient and effective exercise programs to the socially disadvantaged could also be accomplished through the same means.

Implications for Practice

The conceptual model developed in this study highlights the factors inhibiting exercise participation and can be used to improve services and further, the findings of this study conclude that there is much work to be done in the area of physical activity and low-

income older adult women. Specifically, the barriers occurring for these women must be addressed in a substantial way to reduce the likelihood these women will live their late years with limited physical ability thereby decreasing the social impact of having an aging population that is demanding, however, the challenge for practitioners lies in penetrating the barriers. In addition, there is little accomplished in motivating older adults to participate in regular exercise if their basic needs are not being met and there are few opportunities for them to choose from. Therefore professionals must recognize that in order to encourage physical activity they must first begin to address basic needs and in many respect this approach will help in gaining the trust and confidence in these women. After trust is established and a few basic needs are met, work around promoting physical activity can occur.

There is a great need for program development in the area of exercise and older adult women. These programs must address the barriers of crime, lack of social support, not having control, exercise efficacy and physical limitations. These programs must be easily accessible, offering programs at low cost, as well as minimal transportation to attend the programs. Based on the findings of this study, programs and services must incorporate a direct initiative to minimize the fear of crime, so programs that are small groups, indoors and during the day will be appropriate. Furthermore, issues such as facilitating access to safe yet affordable transportation and teaching basic self-defense techniques are also beneficial. Another initiative would be to encourage the social component of exercise, maximizing opportunities to interact with others in similar

circumstances. This will allow for the women to connect with each other and provide opportunities to socialize and develop friendships.

Exercise consultants should also be available within the community to educate older adults on options for exercise during the winter months as well as other activities they may do in their homes in an affordable yet efficient manner. Another option would be to design an older adult recreation facility that can provide the widest ranges of services possible including outreach work into the homes of more isolated women. These consultants can also facilitate the development of partnerships between researchers, service providers, physicians and community organizations. A collaboration of these services would ensure older adult women would be able to access information, services and programs that are or can be available to them. The current lack of collaboration between these disciplines creates a gap in services. Service providers such as Homecare workers, social workers and physicians are the people that older adults, particularly, independent living older adults, are most frequently in contact with. If social workers or Homecare nurses were aware of programs available within the community, referrals become possible. Similarly if physicians were also aware of advances in exercise research in addition to services and programs available through community organizations or facilities they too will be able to provide excellent advice and referrals. A strong interagency approach to active living will ensure that "invisible" women do not slip through the gaps in service.

Directions for Future Research

The most important learning of the current research is that whatever the occupation or position one has in working with the socially disadvantaged older adult, we must learn how to be sensitive to the needs and barriers that are experienced by this population. It is too easy for both research and services to be biased against the disadvantaged. Future research can begin to focus on addressing additional questions regarding the impact of barriers on exercise participation for older adult women. This is pertinent, as research addressing the social circumstances of the older adult is scarce in comparison with the extreme complexity of the issues. In order to develop effective programs and services practitioners will need a better understanding of the barriers that exist including how these barriers interplay with each other. In addition, research must also focus on including the more disadvantaged groups such as ethnic minorities, individuals with addictions and mental illnesses. There are higher proportions of such groups residing within the inner city, they are more likely to be poor, not volunteer for research projects and not access community services and programs. It will be important to include such groups in research to have a complete understanding of the pervasive factors that prevent these individuals from participating in regular exercise.

Another area for future research will be to develop appropriate strategies and interventions to eliminate the barriers to exercise for low-income older adult women. Designing interventions, testing them and determining their effectiveness will be crucial in ensuring that appropriate strategies are designed to eliminate barriers. Further research

can also be pursued to develop an effective collaboration between community resources, service providers and physicians. The needs of older adult women living in poverty can be more accurately addressed if service providers can work in co-operation with each other. There is an obvious gap in services where exercise programs are concerned and in addition, if there are programs that are available to these women, the women themselves are not aware of it. For this reason, developing new strategies and interventions are essential to enabling invisible women to become visible.

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APPENDIX A

Sample Interview Guide

Do you exercise now?

Why are you (not) exercising?

Are you interested in exercising?

What does exercise mean to you?

I am interested in finding out about what prevents you from exercising regularly. Can you tell me about this?

Probes:

What are some barriers that have occurred for you when trying to be physically active?

Can you tell me more about this experience/ event/ situation/ circumstance?

What are some of the things you would change about your life so that you could exercise regularly?

Demographic Information:

What is your age?

How long did you go to school?

What was your past job?

Do you receive income supplements?

Do you own your house? A car? Or any other assets?

Do you find it hard to make ends meet?

Tell me a little bit about your life history.

APPENDIX B

Information Sheet

RESEARCH TITLE: What do low-income, older adult women say are barriers to participating in exercise?

INVESTIGATOR: Tobie R. Mathew, BA.
Msc., Health Promotion Student
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T6G 2T4
492-8507

SUPERVISOR: Sandra O'Brien Cousins, Ed.D.
Professor
Faculty of Physical Education & Recreation
Van Vliet
University Of Alberta
T6G 2G3
492-1033

PURPOSE:
The purpose of this study is to explore and describe what low-income elderly women living in poverty say are barriers to exercise participation.

PROCEDURE:

1. The researcher will ask about the barriers you experience regarding exercise. The interview will last one hour.
2. The discussion will be taped. Only the researcher and the person writing out the tapes will listen to the tapes
3. The tapes will be written out. Only the researcher and thesis supervisor will read the written copy of the tapes
4. Names and other ways to identify you will be erased form the written copy of the tapes.
5. The researcher will contact you if information needs to be clearer after the tapes are written out.

PARTICIPATION

There are no known risks or benefits to you if you take part in this study. Results from this study may help health professionals to design exercise programs for low-income, older women.

You do not have to be in this study if you do not wish to be. If you decide to be in the study, you may drop out at any time by telling the researcher. There will be no effects on you if you choose not to participate. You do not have to answer any question or discuss any subject in the interview if do not want to.

Your name will not appear in the study. Only a code number will appear on any forms or question sheets. The researcher will erase your name and other ways to identify you from the written copy of the tapes. All tapes, written copies of the tapes, and notes will be kept in a locked cabinet separate from the consent forms or code lists for seven years after the completion of the research, as stated by University Policy. Consent forms will be kept for five years. Data may be used for another study in the future, if the researcher receives approval from the appropriate ethics review committee.

We may publish or present the information and findings of this study at conferences, but your name or any material that may identify you will not be used. If you have any questions about this study at any time you can call the researcher or her supervisor at the numbers above.

If you have any concerns about any part of this study, you may contact the Capital Health Patient Concerns office, the phone number is 474-8892. This office has no affiliation with the study investigators.

REQUEST FOR SUMMARY: (OPTIONAL)

If you wish to receive a summary of this study when it is finished, please complete the next section:

Name: _____

Address: _____

Postal Code: _____

APPENDIX C

Consent Form

RESEARCH TITLE: What do low-income, older adult women say are barriers to participating in exercise?

INVESTIGATOR: Tobie R. Mathew, BA.
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Do you understand that you have been asked to be in a research study?

Yes No

Have you read and received a copy of the attached Information Sheet?

Yes No

Do you understand the benefits and risks involved in taking part in this research study?

Yes No

Have you had an opportunity to ask questions and discuss this study?

Yes No

Do you understand that you are free to refuse to participate or withdraw from the study at any time? You do not have to give a reason and it will not affect in any way.

Yes No

Has the issue of confidentiality been explained to you?

Yes No

This study was explained to me by:

_____

I agree to take part in this study.

_____ _____

Signature of Research Participant Date

_____

Printed Name

_____

Witness

_____

Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

_____ _____

Signature of Investigator or Designee Date